

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

2. Claims 7 and 18 are objected to because of the following informalities: Lines 2-3, "converts a program," needs to be changed to --converts information concerning a program,--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naimpally (US 2003/0106056) in view of Fang (US 6,816,201).

Regarding claim 1, Naimpally teaches a digital information receiver (Fig. 1, el. 100) comprising:

a channel select portion which channel-selects a digital broadcasting signal accompanied with electronic program guide information, i.e. EPG data, and video information (Para. 22, lines 1-7; Para. 25, lines 1-8);

a demodulating portion which demodulates the video information and the electronic program guide of the digital broadcasting signal channel-selected by the channel select portion and outputs a video signal and an electronic program signal, respectively (Para. 24, lines 1-15);

a converting portion which converts at least a part of the electronic program signal outputted from the demodulating portion to an electronic program signal of a closed caption format, i.e. XDS encoder formats the data for insertion in the XDS (Para. 30, lines 4-8).

Naimpally does not clearly teach a superimposing circuit which superimposes the electronic program signal of the closed caption format converted by the converting portion on the video signal and outputs it.

Fang teaches a superimposing circuit which XDS text data converted by a converting portion on a video signal and outputs it (Col. 4, lines 5-32).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Naimpally to have a superimposing circuit which superimposes XDS text data converted by a converting portion on a video signal and outputting it, as taught by Fang, so to enable a subscriber to view an emergency warning on the television.

Regarding claim 2, Naimpally in view of Fang further teaches when information of the closed caption format which originally exists in the video signal is detected (Naimpally-Para. 23, lines 1-10),

the converting portion converts at least a part of the electronic program signal outputted from the demodulating portion to the electronic program signal of the closed caption format (Naimpally-Para. 30, lines 4-8),

synthesizes the electronic program signal of the closed caption format with the information of the closed caption format which originally exists in the video signal (Para. 23, lines 1-10), and

outputs it to the superimposing portion (Naimpally-Para. 30, lines 4-8).

Regarding claim 3, Naimpally in view of Fang further teaches when information of the closed caption format which originally exists in the video signal is detected (Naimpally-Para. 23, lines 1-10),

the converting portion further has a decision portion which decides a data channel of the information of the closed caption format (Naimpally-Para. 23, lines 1-10); and

a function of converting at least a part of the electronic program signal outputted from the demodulating portion to the electronic program signal of the closed caption format of a data channel different from the data channel decided by the decision portion (Naimpally-Para. 30, lines 4-8),

synthesizing the electronic program signal of the closed caption format with the information of the closed caption format which originally exists in the video signal (Para. 23, lines 1-10), and

outputting it to the superimposing portion (Naimpally-Para. 30, lines 4-8).

Regarding claim 4, Naimpally in view of Fang further teaches the superimposing portion superimposes the electronic program signal of the closed caption format converted by the converting portion on a vertical blanking interval region of the video signal demodulated by the demodulating portion and output it (Naimpally-Para. 31, lines 1-22; Fang-Col. 4, lines 5-32).

Regarding claim 5, Naimpally in view of Fang further teaches the converting portion converts only information concerning a program, which is currently being received, among the electronic program signals demodulated by the demodulating portion to the electronic program signal of the closed caption format (Naimpally-Para. 26, lines 6-10; Para. 30, lines 4-8).

Regarding claim 6, Naimpally in view of Fang further teaches the converting portion converts information concerning a program, which is currently being received, and other information, i.e. another program's information, among the electronic program signals demodulated by the demodulating portion to the electronic program signal of the closed caption format (Naimpally-Para. 26, lines

6-10; Para. 30, lines 4-8; Para. 38, lines 1-8). Naimpally meets these limitations in the fact that the program data can be updated and stored as sufficient information for each program becomes available.

Regarding claim 7, Naimpally in view of Fang further teaches the converting portion converts information concerning a program, which is currently being received, among the electronic program signals demodulated by the demodulating portion to the electronic program signal of a caption format, (Naimpally-Para. 26, lines 6-10; Para. 30, lines 4-8), and converts a program lineup except the program to the electronic program signal of a text format (Naimpally-Para. 23, lines 1-3; Para. 26, lines 6-10; Para. 38, lines 1-8). Naimpally meets these limitations in the fact that a user can specify multiple programs to record, thereby creating a program lineup, and each program's data can be received and stored, by the recorder, as sufficient information for each program becomes available or after the last program has been recorded.

Regarding claim 8, Naimpally in view of Fang further teaches the converting portion converts the electronic program signal demodulated by the demodulating portion to the electronic program signal of an XDS format, which is an extended specification of the closed caption (Naimpally-Para. 30, lines 4-8).

Regarding claim 9, Naimpally in view of Fang further teaches a synthesis portion which synthesizes a synthesized video signal for displaying program information based on the electronic program signal (Naimpally-Para. 31, lines 1-22), and outputs it by superimposing the electronic program signal demodulated by the demodulating portion on the video signal according to an operating signal from an operating portion, i.e. microprocessor (Naimpally-Para. 31, lines 1-22).

Fang teaches displaying program information, i.e. upcoming television programming, based on an electronic program signal predetermined region of an image based on the video signal in an external display apparatus, i.e. closed caption region (Fang-Col. 4, lines 5-32).

Regarding claim 10, Naimpally in view of Fang further teaches a synthesis portion which synthesizes an electronic program signal, demodulated by the demodulating portion, with the video signal, (Naimpally-Para. 31, lines 1-22), and outputs the synthesized video signal according to an operating signal from an operating portion (Naimpally-Para. 31, lines 1-22).

Fang teaches a display portion to which a synthesized video signal outputted from a synthesis portion is supplied and which displays program information, based on an electronic program signal, at a predetermined region of the image, based on the video signal (Fang-Col. 4, lines 5-32).

Regarding claim 11, Naimpally teaches a digital information receiver, (Fig. 1, el. 100) comprising:

a channel select portion which channel-selects a digital broadcasting signal accompanied with electronic program guide information and video information (Para. 22, lines 1-7; Para. 25, lines 1-8);

a demodulating portion which demodulates the video information and the electronic program guide of the digital broadcasting signal channel-selected by the channel select portion and outputs a video signal and an electronic program signal, respectively (Para. 24, lines 1-15);

a converting portion which converts at least a part of the electronic program signal outputted from the demodulating portion to an electronic program signal of a closed caption format (Para. 30, lines 4-8);

a recording portion which records the video signal, on which the electronic program signal of the closed caption format is superimposed by the superimposing portion, in a storage area of an optical disk in such a manner that a light beam is emitted and the storage area is irradiated with the light beam according to the video signal, i.e. CD-R, CD-RW, or DVD recorder (Para. 37, lines 1-16).

Naimpally does not clearly teach a superimposing circuit which superimposes the electronic program signal of the closed caption format converted by the converting portion on the video signal outputted from the demodulating portion and outputs it.

Fang teaches a superimposing circuit which XDS text data converted by a converting portion on a video signal and outputs it (Col. 4, lines 5-32).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Naimpally to have a superimposing circuit which superimposes XDS text data converted by a converting portion on a video signal and outputting it, as taught by Fang, so to enable a subscriber to view an emergency warning on the television.

Regarding claim 12, this method is analyzed with respect to claim 1.

Regarding claim 13, this method is analyzed with respect to claim 2.

Regarding claim 14, this method is analyzed with respect to claim 3.

Regarding claim 15, this method is analyzed with respect to claim 4.

Regarding claim 16, this method is analyzed with respect to claim 5.

Regarding claim 17, this method is analyzed with respect to claim 6.

Regarding claim 18, this method is analyzed with respect to claim 7.

Regarding claim 19, this method is analyzed with respect to claim 8.

Regarding claim 20, this method is analyzed with respect to claim 9.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEREMY DUFFIELD whose telephone number is (571)270-1643. The examiner can normally be reached on Mon.-Thurs. 7:30 A.M.-5:00 P.M. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hai Tran can be reached on (571) 272-7305. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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JSD

/Hai Tran/
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